REMARKS

Status of the Claims:

Claims 1 and 6-12 are pending in the present application. Claims 2-5 are withdrawn from consideration. Claims 1 and 6-12 are rejected.

In the instant response, claims 1 and 6 are amended. The amendments are supported in the specification. No new matter is added

Rejection under 35 U.S.C. § 112:

Examiner rejected claim 6 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claim 6 has been amended to delete the polyimide species, rendering the rejection moot. Withdrawal of the rejection is requested.

Rejections Under 35 U.S.C. § 103:

Claims 1 and 6-12 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Hughes et al., U. S. 5,844,036 (hereinafter "Hughes").

Claim 1 has been amended to recite a composition "consisting essentially of" thermoplastic material, graphite, carbon fiber and mica, the combination of materials that has been shown to enable articles made therefrom to have coefficients of friction less than or equal to 0.20. Claim 1 has also been amended to clearly state the weight% range of the thermoplastic material and that articles made from the composition have low coefficients of friction.

The Examiner asserts that it would have been obvious to have employed graphite in combination with mica in the composition of Hughes with reasonable chance of success because the Hughes composition can contain the carbon fiber as the reinforcing filler (a) mica as the immobilizing fiber (b) and graphite as the third filler type. The Examiner further asserts that given that graphite and mica

are each individually described as suitable immobilizing fillers, it would have been obvious to use a blend of graphite and mica, for their expected additive effect, as the immobilizing filler component in combination with the carbon filler and polyaryletherketone. The Examiner stated that it is prima facie obvious to combine two materials each of which is taught by the prior art to be useful for the same purpose in order to form a composition that is used for the very same purpose.

Hughes discloses a reinforcing fiber filler that can be selected from a variety of widely available fibrous filler material and, in particular, chopped glass and chopped carbon fibers. The purpose of the reinforcing filler is to strengthen the composite. Hughes discloses 20 examples of non-thermoplastic immobilizing filler, the function of which is to provide additional surface area or volume in the composite. These non-thermoplastic fillers have equiaxed, platelet and whisker morphologies. The platelet particles include graphite, mica and silicon carbide, a known abrasive. A third filler can be added to confer another property such as lubrication. Suitable lubricant fillers are crystalline graphite, boron nitride and molybdenum disulfide. The specific fillers listed by Hughes provide over a hundred possible compositions if one filler is chosen from the non-thermoplastic immobilizing filler list, more if two or more are chosen non-thermoplastic immobilizing filler list. The instant composition consisting essentially of thermoplastic material, graphite, carbon fiber and mica relates to one of these and has been shown to provide articles made therefrom to exhibit low coefficients of friction.

Nowhere does Hughes mention articles having low coefficients of friction. The reinforcing filler is added to strengthen the composite and the non-thermoplastic immobilizing filler to provide additional surface area or volume in the composite. There is no indication in Hughes that any combination of the suggested materials would provide articles with low coefficients of friction and therefore there is not “a reasonable expectation of success” for finding such a

property from this combination of materials. Undeniably, these materials are not "useful for the same purpose" as the Examiner has stated.

The results of Example 2 shown in Table 2 were used to prepare the Pareto Chart shown of Chart 1. A Pareto Chart is used to graphically summarize and display the relative importance of the different materials or parameters contributing to a result. PP is identified in the table following [0019] of US 2004/0158005 and in [0034] as particulate polyimide. As stated in Example 2 [0033], the method of preparation was the same as used in Example 1 with the exception of various filler amounts being changed. The same liquid crystalline polyester, graphite, carbon fiber, mica and particulate polyimide were used and the weight percents of the fillers are given in Table 2. As stated in [0033] each filler component was set from 0 to 12 weight percent and the total filler content did not exceed 48% weight percent. The weight percent of the liquid crystalline polyester makes up the balance. As shown the carbon fiber, mica and graphite contribute to the low coefficient of friction. The most significant contribution is made by carbon fiber. Carbon fiber is not one of Hughes' suggested lubricant fillers but rather one of the reinforcing fiber fillers. The blend of graphite and mica has no significant impact on the coefficient of friction other than that provided by the individual contributions of the graphite and the mica.

Claims 6-12 depend from claim 1, and therefore include all of the limitations of claim 1. In response to the Examiner's rejection of claims 6-12 under 35 U.S.C. 103(a), Applicants incorporate all of the above remarks and arguments made with respect to claim 1.

CONCLUSION

In view of the foregoing, reconsideration of the rejections is requested, and allowance of pending claims 1, and 6-12 is respectfully requested.

Respectfully submitted,

/Chyrrea J. Sebree/

CHYRREA J. SEBREE
ATTORNEY FOR APPLICANT
Registration No.: 45,348
Telephone: (302) 992-3407
Facsimile: (302) 992-3257

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CJS:ms